

**AMENDMENTS TO THE CLAIMS**

Claims 1-2 (Canceled)

3. (New) A rolling angle control device for a remote-controlled two-wheeled vehicle, the remote-controlled two-wheeled vehicle comprising a vehicle main body, a steering shaft supported on the front section of the vehicle main body at a predetermined caster angle, a front fork to support a front wheel and pivotally rotatable around the steering shaft, a steering actuator being able to apply a rotational torque in either the left/right direction to the steering shaft or the front fork, a rear wheel disposed at the rear section of the vehicle main body and rotationally driven by a prime motor, and a remote control receiver mounted on the vehicle main body, comprising:

a rolling angle detection means to detect the rolling angle of the vehicle main body;

a control means to output an operation amount of the steering actuator based on the detected rolling angle value by the rolling angle detection means and a rolling angle target value from the remote control receiver so as to bring the detected rolling angle value closer to the rolling angle target value; and

a steering angle detection means to detect to which at least the neutral point as a boundary the steering angle is turned left or right;

wherein the control means is configured to apply a signal to the operation amount for the steering actuator, the signal is to apply a right-rotational torque to the steering shaft or the front fork via the steering actuator when the steering angle detected by the steering angle detection means is in the right direction, or to apply a left-rotational torque to the steering shaft or the front fork via the steering actuator when the steering angle detected by the steering angle detection means is in the left direction.

4. (New) The rolling angle control device for the remote-controlled two-wheeled vehicle according to Claim 3, wherein the rolling angle detection means is configured by an angular velocity sensor to detect the angular velocity of rotation of the vehicle main body around the roll axis and an integration means to calculate the rolling angle of the vehicle main body by integrating a detected angular velocity value obtained from the angular velocity sensor, comprising:

a target value determination means to determine whether the rolling angle target value received by the remote control receiver is  $0^\circ$ ; and

an error correction means to make correction to decrease absolute value of the integral value of the integration means when the target value determination means determines that the rolling angle target value is  $0^\circ$ .